US ENVIRONMENTAL PROTECTION AGENCY
Region 1 New England - OEME
11 Technology Drive, North Chelmsford, MA 01863

Inspection Report

Drafted Date: October 15, 2015
Finalized Date: January 7, 2016

Subject: Magnan Brothers Home Farm and Burnor Farm - Inspection Report

From: Lisa Thuot (OEME) – USEPA Compliance Inspector

To: File

I. Facility Information:

A. *Facility 1 Name/Location:* Magnan Brothers Home Farm
1380 Chester A. Arthur Rd.
Fairfield, VT 05455

B. Facility 2 Name/Location: Burnor Farm
4883 VT-36
Fairfield, VT 05455

C. *Facility 3 Name/Location:* Stonehouse Farm
124A Stonehouse Drive
Fairfield, VT 05455

D. *Facility Contact(s)*: Mark Magnan – Co-Owner

E. *Mailing Address*: 1380 Chester A. Arthur Rd.
Fairfield, VT 05455

II. Inspection Information:

A. Date and time of inspection:
Facility entrance: July 29, 2015, 1230
Facility exit: July 29, 2015, 1710

B. Weather Conditions: Sunny, humid, approx. 90° F

C. US EPA Representative(s): Lisa Thuot, EPA Region 1

D. State Representative(s): Trevor Lewis, VT Agency of Agriculture

E. Federal Requirements Covered During Inspection: 40 CFR Part 122.23

III. Type and Purpose of Inspection:
The purpose of the inspection was to assess applicability of the Concentrated Animal Feeding Operation requirements under the Clean Water Act at 40 C.F.R. Part 122.23.

IV. Inspection Information
Entry Procedures:
The inspection was announced in advance by telephone to one of the owners, Mark Magnan, who was the representative during the inspection. Upon arriving at the Magnan Home Farm, located at 1380 Chester Arthur Road in Fairfield ("the farm"), I presented my inspector credentials to Mr. Magnan. Prior to walking around the farm, I disinfected my boots in accordance with EPA Biosecurity procedures.

Facility Information:
- Mark Magnan and his brothers (Marty Magnan and Peter Magnan) own several farm facilities in the region, including the Home Farm.
- The crop acreage totals for all of the Magnan facilities include 1,200 acres of hay, 400 acres of corn, and about 600 acres of pasture. The farm participates in NRCS cover crop and manure injection programs. Manure application/spreading is done by farm staff using their own equipment.
- The Home farm is a dairy operation with 700 milking cows and 50 dry cows. There are no heifers or youngstock at this facility.
- Large cow mortalities are primarily sent off-site to a rendering facility. The Home farm has one small compost pile on-site for calves.
- The on-site manure pit receives manure from the milking and dry cow barns. Manure is automatically scraped from the main barn into a hopper and into the manure pit. Milkhouse wastewater is transferred to a receiving pit which batch discharges into the manure pit. Some dry cow manure is stacked outside the pit, although Marty Magnan said this is not typical. Some spoiled silage is occasionally field-stacked in corn fields.
- The nearest water of the U.S. is the Fairfield River, located approximately 0.1 miles southwest of the farm production area.

Home Farm:
- The new freestall barn and addition have alley scrapers, and manure goes into a hopper and to the on-site manure pit. There is a new clean water diversion outside and around the barn, including a pipe and crushed stone swale (photo #1).
- The farm has an older, smaller pit on-site which is used for extra manure storage as needed; there is a transfer pump between the main pit and the smaller pit.
- A new covered laneway was added for cows walking to the milking parlor.
- There is a separate fresh cow barn for cows who recently gave birth.
- At the silage area, a new leachate/runoff collection system was installed about 4 years ago. Leachate/runoff is directed into a concrete collection bay, and is transferred through a pipe into a holding tank with 2 pumps and into a collection pond. There was an accumulation of solids around the intake screen and in the collection bay that required maintenance, to avoid leachate runoff into an adjacent wetland stream that abuts the silage area (photos #2-4).

- The silage collection pond is located on the north side of Chester A. Arthur Rd., across from the Home farm (photo #5). Upon inspecting the pond, we discovered a breach/hole in a low corner of the pond, where we observed water seeping/leaking through the bank into the surrounding field. Trevor Lewis suggested mowing/cutting back the vegetation so the owners could inspect and fix the berm. Mr. Magnan said he can reinforce the pond berms/banks with loam and dirt.
- A dry cow pasture area just north of the freestall barn borders a low vegetated drainage swale, which is blocked off with an electric fence. Trevor Lewis suggested the owners also add electric fencing over a small walkway used by dry cows to cross the swale.
- The mortality pile is located in a wooded area next to crop land, approximately 1 mile north of the main farm. The pile has been in place for about 2 years. We did not observe a connection between the mortality pile and a nearby ditch.

Records Review:

- The Home farm has a nutrient management plan (NMP) developed by the Bordeau Brothers of Middlebury, VT.
- Peter Magnan, who was not present, keeps track of manure loads applied to each field. Recent spreading records were not available. Trevor Lewis reminded Mark Magnan that manure spreading records must be kept on-site with the NMP.
- Soil samples are done annually. Some records did not show the name of the fields tested.
- The NMP did not have a manure sampling test for 2014. Mr. Magnan contacted the Bourdeau Brothers during our inspection, and they confirmed the manure sampling had not been done for 2014-2015.
- Trevor Lewis reviewed NMP crop field maps and selected 2 fields to check the buffer/setback with abutting water bodies. Field check #1 was done in a corn crop field across from the Home Farm; the buffer was approximately 20 feet, (slightly less than the minimum 25 feet required by the Agency of Agriculture's permit). Field check #2 was done in a hilly corn crop field, which had a 25 foot buffer with an adjacent stream. We observed sediment/soil erosion on the hillside, and some sediment deposition in the buffer area at the base of the hill. Trevor Lewis recommended a larger buffer for their hilly fields.

Burnor Farm:

- The Magnans have owned this farm for about 10 years.
- The farm is a heifer facility with 180-200 youngstock, including calves. An additional 180-200 heifers and dry cows currently out to pasture are also housed at Burnor farm.
- The nearest water of the U.S. is the Fairfield River, located approximately 0.25 miles east of the farm production area. There is a small unnamed stream (a wetland riverine) associated with the Fairfield River, located approximately 85 feet south of the farm.
- The barn is scraped by skid steer into a center hopper which connects to the manure pit; the volume in the pit was nearing capacity (photo #6).
- At the silage storage area, a leachate/runoff collection system was added a few years ago which directs runoff into the on-site manure pit. The system required maintenance/clean-out due to a build-up of solids and weeds (photo #7). There is a spare/unused silage bunker which is also graded toward the leachate collection system.

- We did not observe evidence of discharges from the farm to the unnamed riverine.

Stonehouse farm Tour:

- Stonehouse farm was purchased by the Magnans in 2001 and it houses up to 200 heifers.
- The nearest water of the U.S. is Black Creek, located approximately 475 feet north of the farm production area. A small unnamed stream associated with Black Creek is located approximately 100 feet south of the farm, which contained flowing water at the time of inspection.
- Manure is scraped from the barn by skid steer into the on-site manure pit.
- Some silage bunker walls were in poor condition, with broken concrete where feed was spilling onto the surrounding pad (photo #8). This silage area drains into an adjacent pond. Trevor Lewis recommended that curbing be added to the farm access road near the bunkers to prevent silage solids from migrating onto the main road and into a roadside drainage ditch.
- There is an electric fence between a grazing/pasture area and the wetland stream. The owners have a liquid molasses mineral feeder in the grazing yard next to the stream, which had flowing water during the inspection (photo #9). We recommended they move the feeder to a different location, away from the stream.

V. Exit Briefing

An exit briefing was conducted by me and Trevor Lewis with Mark Magnan to discuss the following:

- The silage collection bays need to be cleaned out at the Home Farm and Burnor Farm.
- The leak in bank of the silage pit at the Home farm requires investigation/attention.
- Additional electric fencing was recommended on a dry cow walkway over a vegetated swale at the Home Farm.
- The liquid molasses feeder at the Stonehouse farm should be relocated to an area away from the unnamed wetland stream.
- Some silage bunkers at the Stonehouse farm need repair to the concrete. Curbing was recommended to prevent off-site migration of silage solids.
- Manure sampling/testing needs to be done annually and filed in the NMP.
- Manure spreading records need to be kept on-site with the NMP.

End of Report

Enclosures/Attachments:

Inspection photos
Aerial photo/picture map